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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/711,702

09/30/2004

Tatsuya Kawakami

SIC-04-033

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29863

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07/08/2009

DELAND LAW OFFICE

P.O. BOX 69

KLAMATH RIVER, CA 96050-0069

EXAMINER

LUONG, VINH

ART UNIT

PAPER NUMBER

3656

MAIL DATE

DELIVERY MODE

07/08/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/711,702	Applicant(s) KAWAKAMI, TATSUYA	
	Examiner Vinh T. Luong	Art Unit 3656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11-21, 25 and 26 is/are rejected.
- 7) ☒ Claim(s) 9, 10 and 22-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 June 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>Attachment</u> |

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1. The amendment filed on April 13, 2009 has been entered.
2. Applicant's election of the species of FIGS. 10 and 11 in the reply filed on January 10, 2008 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse. MPEP § 818.03(a).
3. No claim is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on January 10, 2008.
4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 25 and 26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

New claim 25 recites "when the device is oriented such that the rotational axis (X) is vertical, the pivot axis (P) extends at least in part in a vertical direction." The instant functional limitation is unsupported by the application as filed. See MPEP § 2163.01.

A review of the record shows that Applicant original disclosure did not describe the mode of operation as now claimed. The first time that the description "when the device is oriented such that the rotational axis (X) is vertical, the pivot axis (P) extends at least in part in a vertical direction" appeared was the time of filing of the amendment on April 13, 2009. As

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noted, Applicant's drawings are not engineering drawings on scale. In addition, FIGS. 1 and 2 show that Applicant's shift control device 105, 400, 420, 430, 440 can be mounted at different orientations or angles relative to the handlebar 101 by adjusting the mounting bracket 103. More specifically, the description of the elected species of FIGS. 10 and 11 does not mention about the function stated in claim 25. (Spe. 8 and 9: ¶ 27 and 28). On the other hand, the device 430, 440 shown in FIGS. 10 and 11 can be in a vertical, inclined, or horizontal position relative to the handle bar HB. Therefore, when the device 430, 440 is oriented such that the rotational axis X is vertical, the pivot axis P *may or may not* extend at least in part in a vertical direction.

Our reviewing court in *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) stated: “[t]o establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. *Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.*” (Emphasis added). See MPEP § 2112.

In this case, when the device 420, 430 is oriented such that the rotational axis X is vertical, the pivot axis P does *not inherently* extend at least in part in a vertical direction. To the contrary, the pivot axis P can extend in a horizontal direction in a similar manner as the device 105 in FIG. 3, or inclined relative to the horizontal direction as implicitly shown in FIGS. 10 and 11. In other words, the concept set forth in the “wherein” clause of new claim 25 is not conveyed in the original disclosure. Thus, it lacks of a written description under 35 USC 112, first paragraph. See *In re Anderson*, 176 USPQ 331 (CCPA 1973) and *In re Rasmussen*, 650 F.2d 1212, 211 USPQ 323 (CCPA 1981) cited in MPEP § 2163.01 *supra*.

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In view of the foregoing, claims 25 and 26 are rejected as being lack of written description under 35 USC 112, first paragraph. See MPEP § 2163.01.

6. Claims 1, 13, and 18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 8, 18, and 19 of copending Application No. 11389658 (hereinafter “Appl.’658”). Although the conflicting claims are not identical, they are not patentably distinct from each other because Applicant used minor different terminology to claim substantially the same invention. *In re Griswold*, 365 F.2d 834, 150 USPQ 804 (CCPA 1966) cited in MPEP 804.02. For example, please see the comparison among claims 1, 8, 18, and 19 of Appl.’658 and claims 1, 13, and 18 of this application below:

<u>Common</u>	<u>Appl.’658</u>	<u>Appl.’702</u>
shift control device (105)		
control body (170)	cls. 1, 8, 18, 19	cl. 1
(rotational) axis (X)	cls. 1, 8, 18, 19	cl. 1
mounting member (103)	cls. 1, 8	
handlebar mounting axis (HB)		
	operating body (220, Cl. 1) or linear operating body (Cl. 19)	first operating body (220)
abutment (201)	cls. 1, 8, 18, 19	cl. 1
(first) transmission (150)	cls. 1, 8, 18, 19	cl. 1
plurality of ratchet teeth (171)	cls. 1, 8, 18, 19	cl. 1
interface member (202)		
	pivots (cl. 19)	pivot axis (P, cl. 1)
force receiving surface (203),	cls. 1, 18	cl. 1

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or force finger contact	cls. 8, 19	
force applying surface (406)	cls. 1, 8, 18, 19	cl. 1
second operating body (130)	cls. 8, 19	cl. 13
second transmission (160)	cls. 8, 19	cl. 13

From the comparison above, the difference among claims 1, 8, 18, and 19 of Appl.'658 and claim 1 of this application is that claim 1 of this application explicitly claims the pivot axis P of the interface member 202, meanwhile, claim 19 of Appl.'658 does not. However, claim 19 of Appl.'658 implicitly claims the pivot axis P in the recitation “wherein *the interface member pivots* so that the operating force applying surface applies an operating force to the abutment of the linear operating body” (emphasis added) in lines 7-11. To the extent that claim 1 of Appl.'658 further recites “the axis (X) is oriented substantially perpendicular to the handlebar mounting axis (HB),” this feature is also claimed in claim 18 of this application. On the other hand, the handlebar is merely an intended use element in Claim 1 of Appl.'658 as recited in the “adapted to” clause in line 4 of claim 1 of Appl.'658. It is well settled that an element is “adapted to” perform a function is not a positive limitation but only requires the ability to so perform, thus, it does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138 (CCPA 1946).

As evidenced from FIGS. 1-3 of Appl.'658, the position of the mounting member 103 can be adjusted by rotating or turning the mounting sleeve 103A relative to the handlebar 101. When the position of the member 103 is adjusted, the angle defined by the handlebar mounting axis HB (*i.e.*, the axis of the sleeve 103A, see FIGS. 1-3 of the Attachment hereinafter “Att.”) and the rotational axis X (FIG. 3 of Att.) is adjusted therewith.

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to rearrange or adjust the position of the mounting member 103 claimed in this application such that the angle defined by the handlebar mounting axis HB and the rotational axis X is substantially 90° , *i.e.*, to make the axis HB substantially perpendicular to the axis X as claimed in claim 1 of Appl.'658 in order to facilitate the operation of the control device for the rider as taught or suggested by common knowledge in the art. The modification of the claimed shift control device by adjusting or rearranging the positioning of the mounting sleeve so that the axes HB and X would be substantially perpendicular to each other would not have been uniquely challenging to a person of ordinary skill in the art because it is no more than "the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement." *KSR Int'l. Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007) and because it "does no more than yield predictable results." *KSR* at 1739.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

7. Claims 1-8 and 11-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shahana (EP 1 134 158 A2).

At the outset, please note that EP 1 134 158 claims the priority based on US Patent Application No. 09/527,759. The Appl.'759 was issued as US Pat. # 6,450,060 and is now the subject matter in the reissue Appl.'658. The drawings in EP 1 134 158 are identical to the drawings in US Pat.'060. The Examiner uses the drawings in US Pat.'060 in the Attachment (hereinafter "Att.") to avoid redundancy.

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Claim 1

Shahana teaches a bicycle shift control device 105 which operates a shifting mechanism via a shift control cable 104, the shift control device 105 comprising:

a mounting member 103 *structured to mount the shift control device 105 to a handlebar 101*, wherein the mounting member 103 defines a handlebar mounting axis (HB, see FIGS. 1-5 in Att.);

a control body 170 supported by the mounting member 103 and rotatable about a rotational axis (X in Att.) for controlling the shift control cable 104;

a first operating body 220 having an abutment 201 in a position spaced apart from the control body 170 and which is coupled to the shift control device 105 for displacement between a first home position and a first shift position;

a first transmission 150 which converts the displacement of the first operating body 220 from the first home position to the first shift position into a rotational displacement of the control body 170, wherein the first transmission 150 includes a plurality of ratchet teeth 172, 173; an interface member 202 movably mounted relative to the first operating body 220 and having an operating force receiving surface 203 (FIG. 3) and an operating force applying surface 204 (FIGS. 4 and 5),

wherein the operating force receiving surface 203 is *adapted to* receive an operating force from a rider;

wherein the interface member 202 pivots around a pivot axis (P, see FIG. 3 of Att.) so that the operating force applying surface 204 applies the operating force to the abutment 201 of

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the first operating body 220 for moving the first operating body 220 from the first home position to the first shift position;

wherein the pivot axis (P, FIG. 3 of Att.) is capable of being *inclined* relative to the handlebar mounting axis HB (FIGS. 1-3. *Ibid.* paragraphs [0016] and [0017], and claim 3); and

wherein the interface member 202 moves in a direction toward a plane (PL, FIG. 3 of Att.) that contains the handlebar mounting axis HB (FIG. 3) and is parallel with the rotational axis (X) when the first operating body 220 moves from the first home position toward the first shift position.

As noted, FIGS. 1-7 of Shahana are *substantially* identical, if not identical to the species of FIGS. 1-7 of this application. In other words, Shahana teaches the first species of FIGS. 1-7 of this application. Simply put, Shahana substantially teaches the invention as claimed in claim 1 of this application except the pivot axis (P) inclined relative to the handlebar mounting axis (HB) when viewed horizontally.

From FIGS. 1-3, Shahana's pivot axis P is capable of being inclined relative to Shahana's handlebar mounting axis HB when viewed horizontally by rotating or turning the mounting sleeve 103A about the handlebar 101 so that the rider is not required to press perpendicularly to the handlebar without precision placement of the rider's thumb. Shahana, paragraphs [0016] and [0017]. See legal precedent regarding rearrangement of parts or in MPEP 2144.04.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to rearrange the position of the mounting sleeve 103A of Shahana by rotating or turning the sleeve 103A about the handlebar 101 such that the pivot axis P is inclined relative to the handlebar mounting axis HB in order to allow the rider to press perpendicularly to

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the handlebar without precision placement of the rider's thumb as taught or suggested by Shahana. *KSR, supra*.

Claim 2

The plurality of ratchet teeth 173 are disposed in a ratchet teeth plane T (FIGS. 4 and 5), and wherein the ratchet teeth plane T is parallel to a horizontal axis (H in FIG. 4 of Att.). *Ibid.* claim 4.

Claim 3

The plurality of ratchet teeth 173 are disposed in a ratchet teeth plane T (FIGS. 3-5), and wherein a path of movement of the first operating body 220 is *substantially* parallel to the ratchet teeth plane T (FIGS. 3-5).

Claims 4 and 5

Shahana teaches the invention substantially as claimed. In addition, Shahana's pivot axis P is positioned at an angle relative to the handlebar mounting axis HB and Shahana's pivot axis P is *substantially* perpendicular to the rotational axis X as shown in FIGS. 1-3. Moreover, Shahana implicitly suggest to rearrange Shahana's axes P, HB and X such that Shahana's pivot axis P is *substantially* perpendicular to the handlebar mounting axis HB and Shahana's pivot axis P is *substantially* parallel to the rotational axis X (by, e.g., adjusting or rotating the mounting sleeve 103A relative to the handlebar 101 as seen in FIGS. 1-3) in order to allow the rider to press perpendicularly to the handlebar without precision placement of the rider's thumb. Shahana, paragraphs [0016] and [0017].

It would have been obvious to one having ordinary skill in the art at the time the invention was made to rearrange Shahana's axes such that Shahana's pivot axis is *substantially*

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perpendicular to the handlebar mounting axis and Shahana's pivot axis is *substantially* parallel to the rotational axis (by, e.g., adjusting or rotating the mounting sleeve 103A relative to the handlebar 101 as seen in FIGS. 1-3) in order to allow the rider to press perpendicularly to the handlebar without precision placement of the rider's thumb as implicitly taught or suggested by Shahana. *KSR* and legal precedent regarding rearrangement of parts in MPEP 2144.04, *supra*.

Claim 6

The interface member 202 comprises a lever 202.

Claim 7

The lever 202 comprises an operating force receiving member 203 (FIG. 3) extending from the pivot axis (P); and an operating force applying member 204 (FIGS. 4 and 5) extending from the operating force receiving member 203. *Ibid.* abstract.

Claim 8

The pivot axis P is disposed at a junction between the operating force receiving member 203 and the operating force applying member 204 (FIGS. 3-5).

Claim 11

The first operating body 220 (FIG. 3) moves linearly between the first home position and the first shift position. *Ibid.* claims 2 and 6.

Claim 12

The first operating body 220 moves in a straight line (i.e., linearly) between the first home position and the first shift position. *Ibid.* claims 2 and 6.

Claim 13

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A second operating body 130 is coupled to the shift control device 105 for displacement between a second home position and a second shift position; and a second transmission 160 converts the displacement of the second operating body 130 from the second home position to the second shift position into a rotational displacement of the control body 170. *Ibid.* abstract and claims 1-7.

Claim 14

The second operating body 130 rotates between the second home position and the second shift position.

Claim 15

The second operating body 130 forms a finger contact part 132 in a position spaced apart from the control body 170 (FIG. 3).

Claim 16

The second operating body 130 rotates around the rotational axis (X in Att.).

Claims 17 and 18

See claims 12, 4, and 5.

Claim 19

The pivot axis P extends through an end portion of at least one of the operating force receiving member 203 or the operating force applying member 204 (FIG. 3).

Claim 20

The operating force receiving member 203 extends away from the pivot axis P as seen in FIG. 3 in Att., and the operating force applying member 204 extends away from the operating force receiving member 203 and away from the pivot axis P (FIGS. 4 and 5).

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Claim 21

See claim 8.

8. Claims 9, 10, and 22-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Applicant's arguments filed April 13, 2009 have been fully considered but they are not persuasive.

35 USC 112, 1st ¶

The previous rejection under 35 USC 112, 1st ¶ is withdrawn in view of Applicant's deletion of the phrase "when viewed horizontally" in claim 1.

Applicant added new claims 25 and 26, as noted, MPEP 608.01(o) states:

New claims and amendments to the claims already in the application should be scrutinized not only for new matter but also for new terminology. While an applicant is not limited to the nomenclature used in the application as filed, he or she should make appropriate amendment of the specification whenever this nomenclature is departed from by amendment of the claims so as to have clear support or antecedent basis in the specification for the new terms appearing in the claims. This is necessary in order to insure certainty in construing the claims in the light of the specification, *Ex parte Kotler*, 1901 C.D. 62, 95 O.G. 2684 (Comm'r Pat. 1901). See 37 CFR 1.75, MPEP § 608.01(i) and § 1302.01. Note that examiners should ensure that the terms and phrases used in claims presented late in prosecution of the application (including claims amended via an examiner's amendment) find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description, see 37 CFR 1.75(d)(1). (Emphasis added).

In the instant case, Applicant did not point out the support in the written disclosure for the above new claims. See MPEP § 2163.06. A review of the original disclosure shows that the

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functional limitation in “wherein” clause of claims 25 are 26 is not supported either by the written description and/or drawings as explained above. Hence, the “wherein” in new claims necessitates a new ground of rejection under 35 USC 112, 1st ¶.

Obviousness-Type Double Patenting

At the outset, Applicant stated on p. 6 of Amend.:

The first paragraph at page 7 of the office action states that the position of mounting member (103) in Appl. '658 can be adjusted by rotating or turning mounting sleeve (103A) relative to handlebar (101). The applicant understands the meaning of this statement as follows: In the device shown in Fig. 3 of Appl. '658, for example, a not-shown but well-known fixing bolt normally extends through the opening in the lower right side surface of mounting sleeve (103A) (shown as an oval opening because of the perspective of Fig. 3) and screws into the facing lower left side of mounting sleeve (103A) in order to tighten mounting sleeve around handlebar (101). It is assumed that the examiner means that the fixing bolt could be loosened so that mounting sleeve (103A) releases its grip on handlebar (101), and then mounting member (103) can be rotated (turned) coaxially around handlebar (101) (rotated or turned clockwise or counterclockwise in Figs. 4 and 5 in Appl. '658). If that is not what the examiner means, then the examiner is requested to clarify the intended meaning.

The Examiner agreed that Applicant's assumption is correct. In fact, as seen in Applicant's FIGS. 1-3 and described in the specification, the position of the mounting member 103A, 103 is not fixedly attached to the handlebar 101. Moreover, the axis HB of the handlebar can also be changed by adjusting the position of the handlebar or by the curvature of the handlebar. (Shahana p. 3, ¶7.) Please see different designs of the handlebars in the patents, e.g., classified in class 74, subclasses 551.1-551.8 of the Office. On the other hand, Applicant's claims do not require the mounting member to be fixedly attached to the handlebar 101.

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Therefore, the mounting member 103A, 103 can be adjusted by, *e.g.*, the operation described by Applicant above.

Second, Applicant contended that: (a) the pivot axis P will never become inclined relative to the handlebar axis X by rotating the mounting member 103; (b) claim 1 of this application recites "wherein the *pivot axis (P)* is inclined relative to the handlebar mounting axis (HB)"; and (c) there is no reason to modify the pivot axis (P) in Appl. '658 to be inclined relative to handlebar axis (HB) as required by claim 1. (Amend. p. 7)

The Examiner respectfully disagrees that the pivot axis X will never become inclined relative to the handlebar axis X. As evidenced from FIG. 3, the axis P would intersect the axis X. In the absence of an explicit exclusion described in the specification, the angle defined by axes X and P can be an inclined angle. Indeed, Applicant admitted in the last paragraph on page 7 of the amendment filed on June 3, 2008 that "[c]laim 1 has been amended to clarify that the pivot axis (P) is inclined relative to the handlebar mounting axis (HB) *when viewed horizontally*. ***That is, when viewed as shown in Figs. 2 and 4, and not when viewed vertically as shown in Fig. 3.***" (Emphasis added). As noted, Applicant's FIGS. 2 and 4 are virtually identical to FIGS. 2 and 4 shown in EP'158 or US Pat.'060 issued to Shahana. Common sense or common knowledge in the art teaches that if the pivot axis P claimed in this application is inclined relative to the handlebar mounting axis HB when viewed horizontally as admitted, the pivot axis P disclosed in EP'158 or Pat.'060 is similarly inclined. It is well settled that structural similarities have been found to support a *prima facie* case of obviousness. *In re Merck & Co.*, 800 F.2d 1091, 1096-97, 231 USPQ 375, 378-79 (Fed. Cir. 1986) and cases cited in MPEP 2144.08. Simply put, Shahana's pivot P is similarly inclined relative to the handlebar mounting axis HB in

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the same manner as Applicant's axes based on the similarities shown in these FIGS. 1-7 and based on Applicant's admission about the inclination of the pivot axis P in FIGS. 2 and 4 made on page 7 of the amendment filed on June 3, 2008.

Assuming *arguendo* that the rotation of the mounting member 103, 103A would not change the angles defined by the axes P and X, the axes P and X inherently define an angle of a predetermined/certain degree. To change the range of the predetermined degrees of this angle such that the axes P and X are inclined relative to each other would have been a matter of choice in design obvious to one having ordinary skill in the art since the claimed structures and the function they perform are the same as the prior art. *In re Chu*, 66 F.3d 292, 36 USPQ2d 1089 (Fed. Cir. 1995) citing *In re Gal*, 980 F.2d 717, 719, 25 USPQ2d 1076, 1078 (Fed. Cir. 1992). See also legal precedent regarding changes in size or proportion in MPEP § 2144.04.

The reasons for modification of the pivot axis (P) in Appl. '658 to be inclined relative to handlebar axis (HB) as required by claim 1 is, *inter alia*, to allow the shifting operation to be performed without requiring precision placement of the rider's hand. Please see Summary of the Invention of App. '658.

Third, Applicant asserted that claim 1 in this application recites: "wherein the interface member moves in a direction toward a plane (PL) that contains the handlebar mounting axis (HB) and is parallel with the rotational axis (X) when the first operating body moves from the first home position toward the first shift position," and there is no motivation to do so based on claims 1, 8, 18 and 19 in Appl. '658." (Amend. p. 7)

It is well settled that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably

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distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then, it meets the claim. *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963). In addition, it is well settled that the claims drawn to an apparatus must distinguish from prior art in terms of structure rather than function. *In re Schreiber*, 44 USPQ2d 1429 (Fed. Cir. 1997); *In re Danly*, 120 USPQ 528 (CCPA 1959); *Ex parte Masham*, 2 USPQ2d 1647 (BPAI 1987) and MPEP § 2114. Therefore, Applicant's tandem reliance on the alleged different modes of operation of the species of FIGS. 1-7 and the elected species of FIGS. 10 and 11 is unpersuasive.

More importantly, Shahana's FIGS. 4-7 show that the interface member 202 is capable of moving in a direction toward the plane PL that contains the handlebar mounting axis HB and is capable of being parallel with the rotational axis X when the first operating body 220 moves from the first home position toward the first shift position as claimed. In fact, FIGS. 4 and 5 show that: (a) the interface member 202 is moved in a direction toward the plane PL that contains the handlebar mounting axis HB when the operating body 220 moves from the home position (FIG. 6) toward the shift position (FIG. 7); and (b) during the pivotal movement of the interface member 202 in the counterclockwise direction, *i.e.*, from the position in FIG. 4 to the position in FIG. 5, the member 202 inherently passes the position wherein its axis is parallel to the axis X. Shahana: ¶ 14 and 15.

The motivation to modify the pivot axis (P) in Appl. '658 such that it is inclined relative to handlebar axis (HB) as required by claim 1 is, *inter alia*, to allow the shifting operation to be performed without requiring precision placement of the rider's hand. See Summary of the Invention of App. '658.

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In summary, claims 1, 13, and 18 of this application are obvious over claims 1, 8, 18, and 19 of Appl.'658 since these claims do not recite patentably distinguishing structures over each other, and since the claimed device in claims 1, 13, and 18 of this application are capable of performing the functions claimed in claims 1, 8, 18, and 19 of Appl.'658 or *vice versa* as evidenced by FIGS. 4-7 of these two applications.

35 USC 103

Applicant admitted that EP 1 134 158 A2 was cited as category X in the European Search Report. Applicant contended that claim 1 does not read on the species of FIGS. 1-7 (Amend. p. 7). Further, Applicant emphasized that the claims in this application represent an improvement over the device shown in Figs. 1-7 in that the pivot axis (P) recited in claim 1 is inclined relative to the handlebar axis (HB), and this feature prevents the claims from reading on the embodiment shown in Figs. 1-7. (Amend. p. 8)

The Examiner respectfully submits that whether claim 1 reads on the species of FIGS. 1-7 or not is not a material question under 35 USC 103. In determining the differences between the prior art and the claims, the question under 35 USC 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983) cited in MPEP § 2141.02.

In addition, it is well settled law that obviousness question cannot be approached on basis that skilled artisans would only know what they read in references; such artisans must be

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presumed to know some thing about the art apart from what the references disclose. *In re Jacoby*, 309 F.2d 513, 516, 135 USPQ 317, 319 (CCPA 1962).

In the instant case, ¶ 16 of Shahana expressly states that operating force receiving surface (203) of operating tab (202) is inclined relative to a horizontal axis. In addition, as shown in Shahana's FIG. 3, the tab 202 is pivoted by the pivot axis 216 (*i.e.*, the axis P of the interface 202) in the same manner as Applicant's tab 202 in Applicant's FIG. 3. If one makes Shahana's tab 202 inclined relative to the horizontal axis (*i.e.*, handlebar axis) as explicitly suggested by Shahana, one would have to reorient the axis 216 inclined therewith because the axis 216 passing through the openings formed in the tab 202.

Assuming *arguendo* that Shahana does not explicitly teach the rearrangement of the axes P and HB as claimed, the Supreme Court has laid Applicant's arguments to rest by pointing out that while there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness, "the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *KSR* at 1396.

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability.

For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

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Id. at 1740, 82 USPQ2d at 1396. Hence, the Examiner must ask whether the improvement is more than the predictable use of prior art elements according to their established functions. *Id.* In the instant case, Applicant's rearrangement of the position of the mounting sleeve 103A relative to the handlebar mounting axis HB or the rearrangement of the axes P and HB provides no more than predictable results. In fact, the instant results are similar to the ones obtained by Applicant's embodiment of FIGS. 1-7. Hence, Applicant's claim 1 is not patentable as a matter of law based on *KSR*.

On the other hand, Applicant's claim 1 does not recite a change of the function performed by the species of FIGS. 1-7 of Shahana's device. In fact, the non-elected species of FIGS. 1-7 is inherently capable of performing the claimed function as shown in FIGS. 4-7. Indeed, FIGS. 4 and 5 show that: (a) the interface member 202 is moved in a direction toward the plane PL that contains the handlebar mounting axis HB when the operating body 220 moves from the home position (FIG. 6) toward the shift position (FIG. 7); and (b) during the pivotal movement of the interface member 202 in the counterclockwise direction, *i.e.*, from the position in FIG. 4 to the position in FIG. 5, the member 202 inherently passes the position wherein its axis is parallel to the axis X. Shahana: ¶¶ 14 and 15.

Assuming *arguendo* that claim 1 recites a change in the species of FIGS. 1-7, such change would be merely a variation in the orientation of the axes P and HB. Such modification by the rearrangement of the orientations of Shahana's axes P and HB would have been a matter of choice in design since the claimed structures and the function they perform are the same as the prior art. *In re Chu*, 66 F.3d 292, 36 USPQ2d 1089 (Fed. Cir. 1995) citing *In re Gal*, 980 F.2d 717, 719, 25 USPQ2d 1076, 1078 (Fed. Cir. 1992). Put in another fashion, such change is

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predictable as evidenced by FIGS. 1-7 of Applicant and Shahana, *a fortiori*, Applicant's claims are unpatentable pursuant to *KSR supra*.

To the extent that Applicant's reliance on the functional statements in the claims, please note that the "wherein" or "whereby" clause that merely states the inherent results of limitations in the claim adds nothing to the claim's patentability or substance. *Texas Instruments Inc. v. International Trade Commission*, 26 USPQ2d 1018 (Fed. Cir. 1993); *Griffin v. Bertina*, 62 USPQ2d 1431 (Fed. Cir. 2002); and *Amazon.com Inc. v. Barnesandnoble.com Inc.*, 57 USPQ2d 1747 (Fed. Cir. 2001). Put differently, in order to distinguish over the species of FIGS. 1-7, claim 1 must distinguish in terms of structure rather than function over Shahana. *In re Schreiber*; *In re Danly*; *Ex parte Masham*; and MPEP § 2114 *supra*.

Applicant reiterated that the Examiner's modification would change the operation of the device. (Amend. p. 8)

The above contention is likewise unsupported by a consideration of Shahana reference in its entirety. Please note that ¶ 17 of Shahana discloses that the path of movement of sliding operating body (220) is substantially parallel to the plane of ratchet teeth (T), *but the path may vary by plus or minus thirty degrees*. If the path of movement of the body 220 is varied by plus or minus 30°, and if the handlebar axis HB is remained fixed (FIGS. 1 and 2), the axis P is varied therewith relative to the axis HB by plus or minus 30° because the axis P is positioned on the plane of the path as shown in FIGS. 3-5. In other words, if one changes the path of Shahana's operating body 220 by plus or minus 30° relative to the plane of the ratchet teeth T of the teeth 171, that path would also be inclined by plus or minus 30° relative to the handlebar mounting axis HB due to the fact that the plane of the axis HB is substantially parallel with the plane of the

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ratchet teeth 171. Consequently, the user still operates Shahana's device in the species of FIGS. 10 and 11 in the manner shown in Shahana's FIGS. 4-7. Hence, such modification would not change the operation of Shahana's device.

Applicant further contended that a comparison of the species of FIGS. 1-7 and the species of FIGS. 10 and 11 shows that the mode of operation is entirely different from the user's perspective. (Amend. p. 8)

On the one hand, the Examiner respectfully submits that the claims do not call for the process of using the device. It is noted that the features upon which applicant relies, *i.e.*, the process of operating or using of the species of FIGS. 1-7 and the species of FIGS. 10 and 11 (Amend. p. 10) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

On the other hand, contrary to Applicant's remarks, in the species of FIGS. 10 and 11, the user moves the lever 434, 444 for pulling and releasing the shift control cable. Meanwhile, in the species of FIGS. 1-7, the user similarly moves the lever 130 also for pulling and releasing the shift control cable. Therefore, the results of the operation of the species of FIGS. 10 and 11 are predictable, *i.e.*, similar to the results of the operation of the species of FIGS. 1-7. Thus, the functional limitations of the species of FIGS. 10 and 11 as claimed would have been unpatentable under *KSR*.

Applicant asserted that claim 1 does not read on the species of FIGS. 1-7, thus, the claims in this case are different from the prior art in both structures and functions. (Amend. p. 11).

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The Examiner respectfully submits that Applicant apparently applied the wrong test for obviousness. The court has laid Applicant's arguments to rest by pointing out that, in determining the differences between the prior art and the claims, the question under 35 USC 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. MPEP § 2141.02, *supra*.

In the instant case, the differences of changing the angles defined by the axes P and HB would have been obvious because Shahana explicitly suggests the change of the angle of the path of the operating body 220 relative to the plane of the ratchet teeth T by, e.g., plus or minus 30°. (Shahana ¶ 17.) Put differently, it is obvious to try different angles of the path of the operating body 220 relative to the plane of the ratchet teeth T as suggested by Shahana to achieve the inclined angle as claimed. See "Obvious to try" example in MPEP § 2141.

On page 11 of the Amend., Applicant argued about FIGS. 2 and 3 of USP 6,848,335 to Kawakami, FIG. 1 of USP 6,564,671 to Ose, and FIG. 2 of USP 6,155,132 to Yamane, Applicant asserted that none of these references show an interface member as claimed.

Please note that Kawakami teaches the interface, such as, 71, 171 inclined relative to the mounting axis of the handlebar, i.e., the axis of the sleeve 32a, 132a as evidenced by, e.g., Kawakami's FIGS. 4 and 5. Similarly, Ose teaches the interface, e.g., 82 inclined relative to the mounting axis of the handlebar, i.e., the axis of the sleeve 54 as evidenced by, e.g., Ose's FIG. 1; and Yamane teaches the interface, e.g., 68 inclined relative to the mounting axis of the handlebar, i.e., the axis of the sleeve 31 as evidenced by, e.g., Yamane's FIGS. 2 and 3. In addition, please note that Kawakami, Ose, or Yamane is used to point out that the inclined

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interface is well known in the art, meanwhile, Shahana is used to show the claimed breakthrough interface.

With respect to claims 4, 5, and 18, Applicant alleged that rotating Shahana's mounting sleeve (103A) around handlebar (101) would not change the parallel orientation of pivot shaft (216), and hence pivot axis (P), relative to handlebar mounting axis (HB). (Amend. p. 12).

The adjustment or rotating of Shahana's sleeve 103 around the handlebar 101 would change the orientation of the shaft 216 relative to the handlebar 101 and hence the pivot axis P therewith as seen in FIGS. 1 and 2 because the shaft 216 is fixedly attached to the sleeve 103 as seen in FIG. 3.

With respect to claims 7 and 20, Shahana's force applying member 204 is extended from the force receiving member 203 as seen in FIGS. 4 and 5 of Shahana.

With respect to new claims 25 and 26, these claims are unsupported by the original record. Therefore, these claims are not patentable for the similar reasons set forth in MPEP § 2163.01.

Conclusion

For the foregoing, Applicant's request to allow the instant case is respectfully declined.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinh T. Luong whose telephone number is 571-272-7109. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vinh T Luong/
Primary Examiner, Art Unit 3656